

SALENG UNO/ARDUINO UNO

Fire alarm test

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The flame sensor (i.e., the infrared receiving diode) may be used to detect and respond to the presence of a flame or fire, allowing flame detection. This simple exercise demonstrate how this sensor may be used to detect a flame using an Arduino and a buzzer as alarm.

Components needed:

Saleng Uno/Arduino Uno

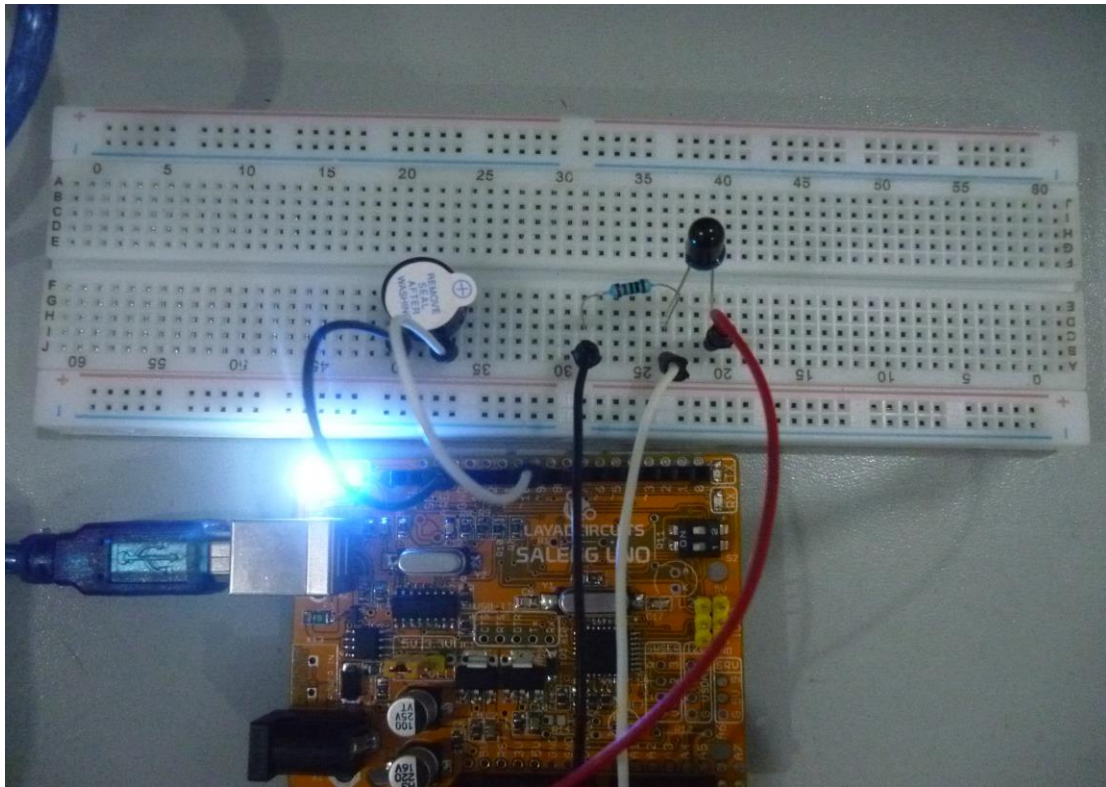
flame sensor * 1

buzzer * 1

Pull down resistor: 10 k resistor: 1

Breadboard

Jumper wires

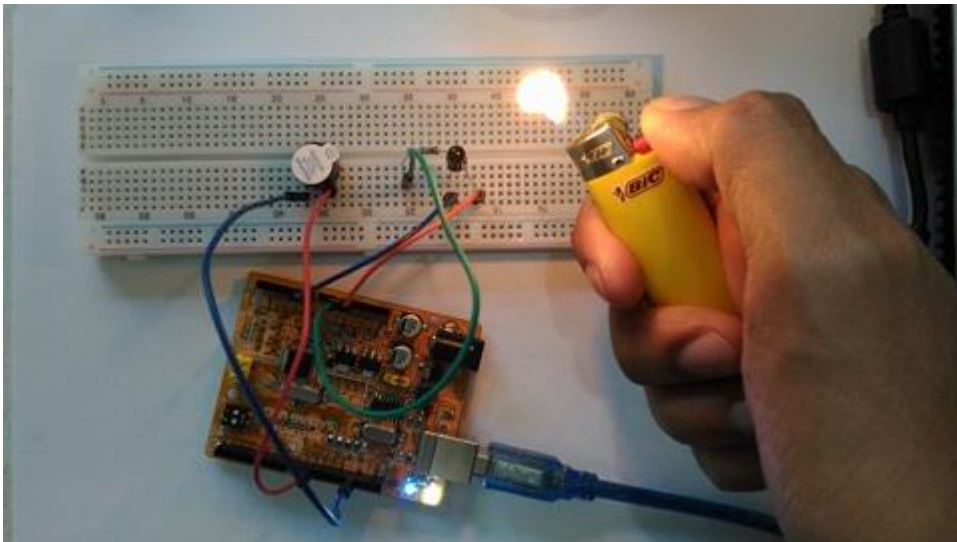


The code:

```
int flame=0;
int Beep=9;
int val=0;
void setup()
{
  pinMode(Beep,OUTPUT);
  pinMode(flame,INPUT);
  Serial.begin(9600);
}
void loop()
{
  val=analogRead(flame);
  Serial.println(val);
  if(val>=600) // change the 600 threshold as you want
  {
    digitalWrite(Beep,HIGH);
  }else
  {
    digitalWrite(Beep,LOW);
  }
  delay(500);
}
```

THE RESULT:

The voltage across the sensor is displayed on the serial monitor (tools>serial monito) at a baud rate of 9600. If the flame generates enough infrared waves to breach the threshold in the code (currently 600 but you may adjust), the buzzer generates sound.



```
huoyanbaojing | Arduino 1.8.5
File Edit Sketch Tools Help
COM4
huoyanbaojing
1 int flame=0;
2 int Beep=9;
3 int val=0;
4 void setup()
5 {
6   pinMode(Beep, OUTPUT);
7   pinMode(flame, INPUT);
8   Serial.begin(9600);
9 }
10 void loop()
11 {
12   val=analogRead(flame);
13   Serial.println(val);
14   if(val>5)
15   {
16     digitalWrite(Beep, HIGH);
17   }else
18   {
19     digitalWrite(Beep, LOW);
20   }
21   delay(500);
22 }
23
24
0
0
0
0
0
6
4
11
10
10
6
15
37
43
81
123
42
164
0
0
0
0
0
0
0
0
0
0
Autoscroll No line ending 9600 baud
```